

REMARKS

Claims 1-5 are pending in the present application; all claims were rejected in the present Office Action. Claims 1-5 have been amended for clarity as well as to correct certain minor informalities.

The Examiner rejected Claims 1-5 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,968,201 (Shida) in view of U.S. Patent No. 5,349,608 (Graham). Shida describes receiving data representing voice information and subjecting it to Viterbi decoding to correct an error in the received data. Graham describes enhanced speed without loss of performance of a Viterbi decoder including an add-compare-select (ACS) processor, by maintaining a dynamic cumulative metric range for computed state metrics.

Shida decides whether to ultimately output a voice; this is determined according to a (Cyclic Redundancy Check) (see: step s409 in FIG. 11). However, even though voice data passes by the CRC, some data errors cannot be sensed by the error detection process using the CRC and may remain in the data, thereby causing noise in the voice output. As a solution for this problem, Shida teaches performing comparison on a path metric at the last step before voice output, but only once.

Further, in calculating a path metric, Shida proposes a method where path metrics are calculated and the smallest path metric is selected from among the calculated path metrics (see: column 6, lines 34-37). This is a conventional Viterbi decoding method. According to the conventional Viterbi decoding method, a path metric value, which is not selected is eliminated.

Contrarily, the present invention performs comparison on survival and competition path metric values several times during the performance of Viterbi decoding in order to normalize survival and competition path metric. Furthermore, according to the present invention even the path metric that is not selected is not eliminated.

Regarding Claims 1 and 5, it is respectfully submitted that the Examiner, erroneously and without an explanation, equates a step of calculating path metric, described in the Shida specification in column 6, lines 35-36 and column 8, lines 54-55, which state: "During the Viterbi decoding, path metrics are calculated, and the smallest path metric is selected from among the calculated path

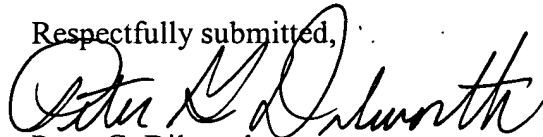
metrics” as analogous to the “detecting the survival path metric values out of the metric values” element of Claims 1 and 5 of the present invention. The meaning of the words “calculate” and “select” is very different from that of the word “detect”.

The Examiner further references the Shida specification in column 6, lines 36-37 and column 8, lines 55-56: “The second data is determined by the smallest path metric.” as teaching the “detecting a minimum survival path metric value out of the detected survival path metric values” element of Claims 1 and 5. On its face, however, “The second data is determined” portion of the referenced sentence of the Shida specification, describes determining “second data”. Neither in this portion nor elsewhere in the Shida specification is there a teaching of performing the step of “detecting a minimum survival path metric value” recited in Claims 1 and 5 of the present invention. The deficiencies of Shida are not cured by Graham.

Regarding Claims 2-4, these claims recite: “detected survival path metric values”, as explained above, the detection of survival path metric values is not taught or described by Shida, Graham, or the combination thereof.

Based on the arguments presented above with respect to Claims 1-5, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested. Accordingly, all of the claims pending in the Application, namely, Claims 1-5, are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants’ attorney at the number given below.

Respectfully submitted,



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